

REMARKS

Claims 21-41 were pending in the present application. Claim 33 has been amended. Accordingly, claims 21-41 remain pending.

Claims 33-39 stand rejected under 35 U.S.C. §112, 1st paragraph, as “failing to comply with the enablement requirement.” Although Applicant respectfully disagrees with the Examiner’s assertion and rejection under 35 U.S.C. §112, 1st paragraph, Applicant has amended claim 33, as the Examiner has suggested, thereby placing the claims in better condition for appeal.

Claims 21-26, 28, 31-38, and 40 stand rejected under 35 U.S.C. §102(b) as being anticipated by de Corlieu et al. (U.S. Patent No. 4,891,810) (hereinafter “de Corlieu”). Applicant respectfully traverses this rejection.

Claims 27 and 39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over de Corlieu in view of Mejyr (U.S. Patent Number 6,674,821). Applicant respectfully traverses this rejection.

Claims 29 and 41 stand rejected under 35 U.S.C. §103(a) as being unpatentable over de Corlieu in view of McLaughlin et al. (U.S. Patent Number 5,136,498) (hereinafter “McLaughlin”). Applicant respectfully traverses this rejection.

Rejections under 35 U.S.C. 102(b)

Applicant’s claim 21 recites

“A semiconductor device for use in a computing system, the semiconductor device comprising:

a plurality of processors formed on the semiconductor device;

a plurality of input/output (I/O) controllers formed on the

semiconductor device and coupled to the plurality of

processors such that each of the plurality of processors is coupled to each of the plurality of I/O controllers; and a plurality of I/O interfaces formed on the semiconductor device and coupled to convey the data between the plurality of I/O controllers and the computing system;
wherein the plurality of I/O controllers are arranged to form a switching fabric including a plurality of communication channels configured to convey data between any of the processors and any of the (I/O) interfaces;
wherein at least a portion of the processors and at least a portion of the I/O controllers are redundant.” (Emphasis added)

The Examiner asserts that de Corlieu teaches each and every element recited in Applicant’s claim 21. Applicant respectfully disagrees with the Examiner’s characterization of de Corlieu. More particularly, de Corlieu is directed toward a reconfigurable computing device in which de Corlieu discloses in FIG. 1 a plurality of processors. However, in contrast to Applicant’s claim 21, de Corlieu teaches at FIG. 1 and FIG. 2 and col. 6, lines 7-30

“FIG. 2 shows an embodiment of a processor 100 according to the invention. For the clarity of the figure, only the data buses have been shown. The embodiment of the processor 100 according to the invention, shown in FIG. 2, comprises an arithmetic and logic unit 13, a multiplier 14 and a register bank 2. A communications device 16 is used to furnish data needed for computations to the inputs of the arithmetic and logic unit 13, the multiplier 14 and the register bank 2. Similarly, the communications device 16 can be used to collect the results of the computations by the arithmetic and logic units 13 and the multiplier 14 as well as to read the data stored in the register 20 of the register bank 2. Furthermore, the communications device 16 is connected by a bi-directional bus (or two buses) 43 to the memory interface 5, by a bus 52 to a device (not shown), which is capable of giving constants needed for the computations, and to the external communications devices 15 by a bi-directional bus (or two buses) 48. The external communications device 15 is, for example, a communications interface by which several processors 100 according to the invention, can be connected in rings. For example, each processor 100 is connected to its neighbour on the right and on the left.” (Emphasis added)

From the foregoing, it is clear that de Corlieu is disclosing in FIG. 2 an embodiment of a single processor which includes a communications device 16. Further, it is clear that de Corlieu is disclosing processors coupled together in a ring configuration in which each processor is coupled only to the processor to its left and right. Thus, the processors 100 and their respective communications devices cannot possibly be connected in a fabric in which each processor is coupled to each I/O controller. Applicant notes that a ring configuration is inherently different than a fabric. Furthermore, Applicant cannot find any language in de Corlieu to support the Examiner's assertion that de Corlieu teaches that all the processors 100 are on the same semiconductor die.

Rejections under 35 U.S.C. 103(a)

Mejyr is directed toward clock control within a device receiving a clock form an external source.

McLaughlin is directed toward exchanging primary and secondary roles between a redundant pair of processors.

Thus, Applicant submits de Corlieu does not teach, disclose, or even fairly suggest “a plurality of input/output (I/O) controllers formed on the semiconductor device and coupled to the plurality of processors such that each of the plurality of processors is coupled to each of the plurality of I/O controllers,” nor does de Corlieu does not teach, disclose, or fairly suggest “a plurality of I/O interfaces formed on the semiconductor device and coupled to convey the data between the plurality of I/O controllers and the computing system. In addition, de Corlieu does not teach, disclose, or fairly suggest “wherein the plurality of I/O controllers are arranged to form a switching fabric including a plurality of communication channels configured to convey data between any of the processors and any of the (I/O) interfaces,” as recited in Applicant's claim 21.

In addition, Applicant submits that all the references cited by the Examiner, taken either singly or in combination, do not teach or suggest the combination of features recited in Applicant's claim 21.

Accordingly, Applicant submits that claim 21, along with its dependent claims, patentably distinguishes over de Corlieu for the reasons given above. Likewise, Applicant submits that claim 21, along with its dependent claims, patentably distinguishes over de Corlieu in view of Mejyr and over de Corlieu in view of McLaughlin for the reasons given above.

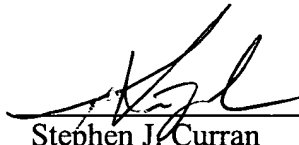
Applicant's claim 33 recites features that are similar to the features recited in claim 21. Thus, Applicant believes that claim 33, along with its dependent claims, patentably distinguishes over de Corlieu, over de Corlieu in view of Mejyr, and over de Corlieu in view of McLaughlin for at least the reasons given above.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/6000-00700/SJC.

Respectfully submitted,



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